The AltEn Facility Response Group (FRG)

The FRG was formed in

2021

The FRG was formed in 2021 after the Nebraska Department of Environment and Energy (NDEE) sought assistance with efforts to address environmental issues at the AltEn site caused by how AltEn mishandled materials at its facility, its failure to follow requirements outlined in its customer agreements, and its lack of compliance with federal and state environmental regulations.

The FRG joined together to address the unsafe conditions created by AltEn's mismanagement of solids and water generated by the ethanol production process on-site and are participating in the NDEE's Voluntary Clean-up Program (VCP) based on a Memorandum of Agreement.

The FRG has stabilized the AltEn site, developed a Remedial Action Plan (RAP) for water stored at the site and is developing a RAP recommendation for the onsite solids.

The FRG members do not own the site, have never operated the ethanol facility, and played no role in AltEn's management of its facility. The site owner, AltEn, is the permitted entity at the site and is not a member of the FRG. AltEn is not contributing to the voluntary measures of the FRG.

The FRG consists of six former AltEn customers that were among dozens of companies that supplied corn seed to AltEn: AgReliant, Bayer, Beck's, Corteva Agriscience, Syngenta, WinField United.



# History of the AltEn site



#### 2019

AltEn received complaints about wet cake odors and land application.



### February 2021

A digester tank valve burst and released 4 million gallons of wastewater and sludge.



#### **June 2021**

The AltEn Facility Response Group (FRG) was formed to stabilize the site.

- Six companies, former AltEn customers with agreements to supply AltEn seed for ethanol production: AgReliant, Bayer, Beck's, Corteva Agriscience, WinField United, Syngenta
- AltEn is not a member and is not participating in voluntary measures of the FRG
- The FRG entered the site into the Nebraska Voluntary
  Cleanup Program (VCP) pursuant to a Memorandum of Understanding dated June 30, 2021
- NewFields retained as the FRG's technical consultant and project manager
- NDEE has oversight of all work performed under the VCP



#### 2019

The Nebraska Department of Environment and Energy (NDEE) issued orders to cease land application of wet cake and wastewater.



### February 2021

The NDEE ordered AltEn to cease operations until cleanup has been completed.

As this work continues, the FRG's top priority is to ensure the continued safety of the surrounding community and environment.



## Then and now: See the progress

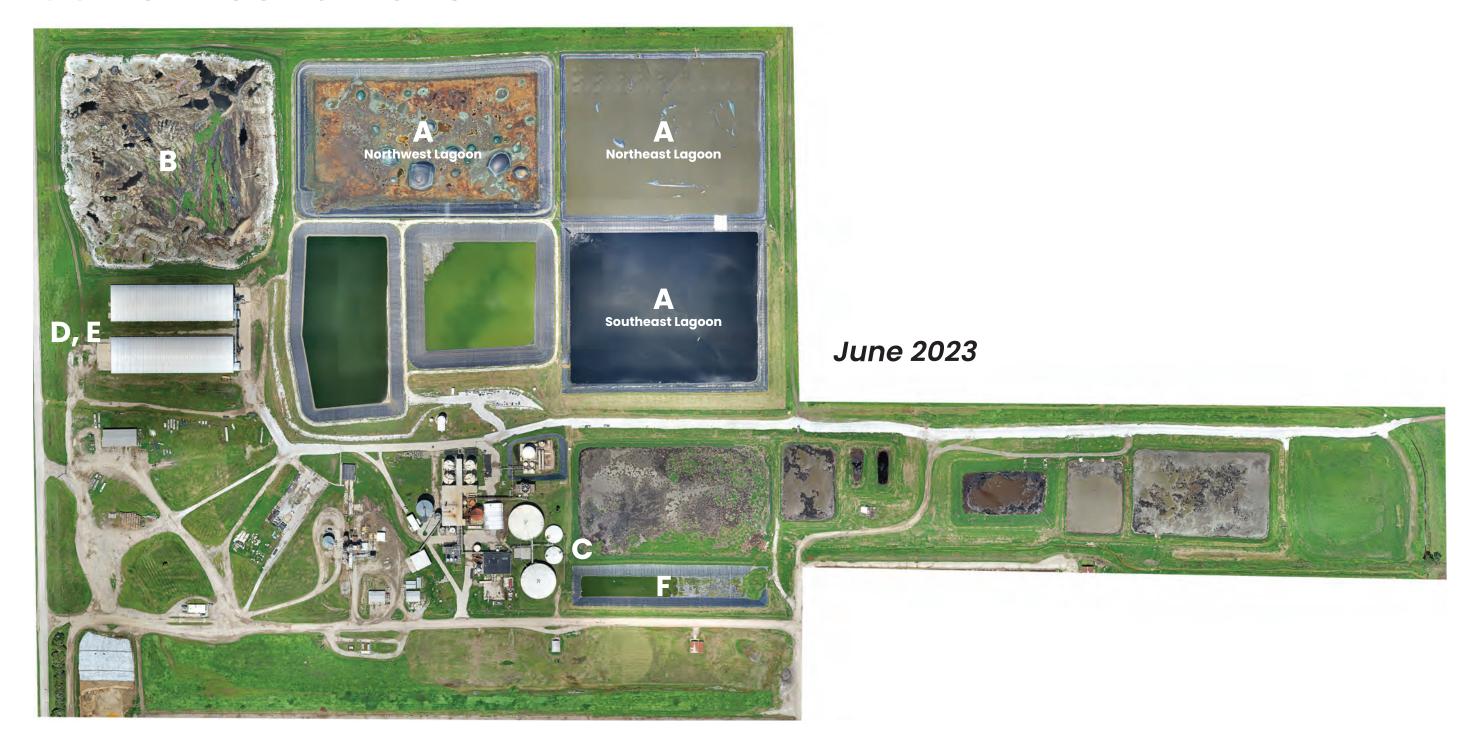
### **Starting conditions**



#### A Three overfilled lagoons

- Compromised liners in two lagoons
- Sludge present in each lagoon
- Gas whale formation since at least 2018
- **B Wet cake** 30 acres of wet cake (three locations)
- C Digestor Sludge remaining in tanks
  - Liquid chemicals in unsecured tankage
  - Digestor wastewater spill 4 million gallons
- D **Seed** 6,675 tons of treated seed corn
- E Biochar
- F Overfilled emergency pond

#### **Current conditions**



A Northwest Lagoon – In the process of dewatering

**Northeast Lagoon** - Reduced water level to free-board (this means taking the water level down to below what the lagoon was designed to hold) and held at a consistent volume

**Southeast Lagoon** - Reduced water level to free-board and taking influent into the new treatment system

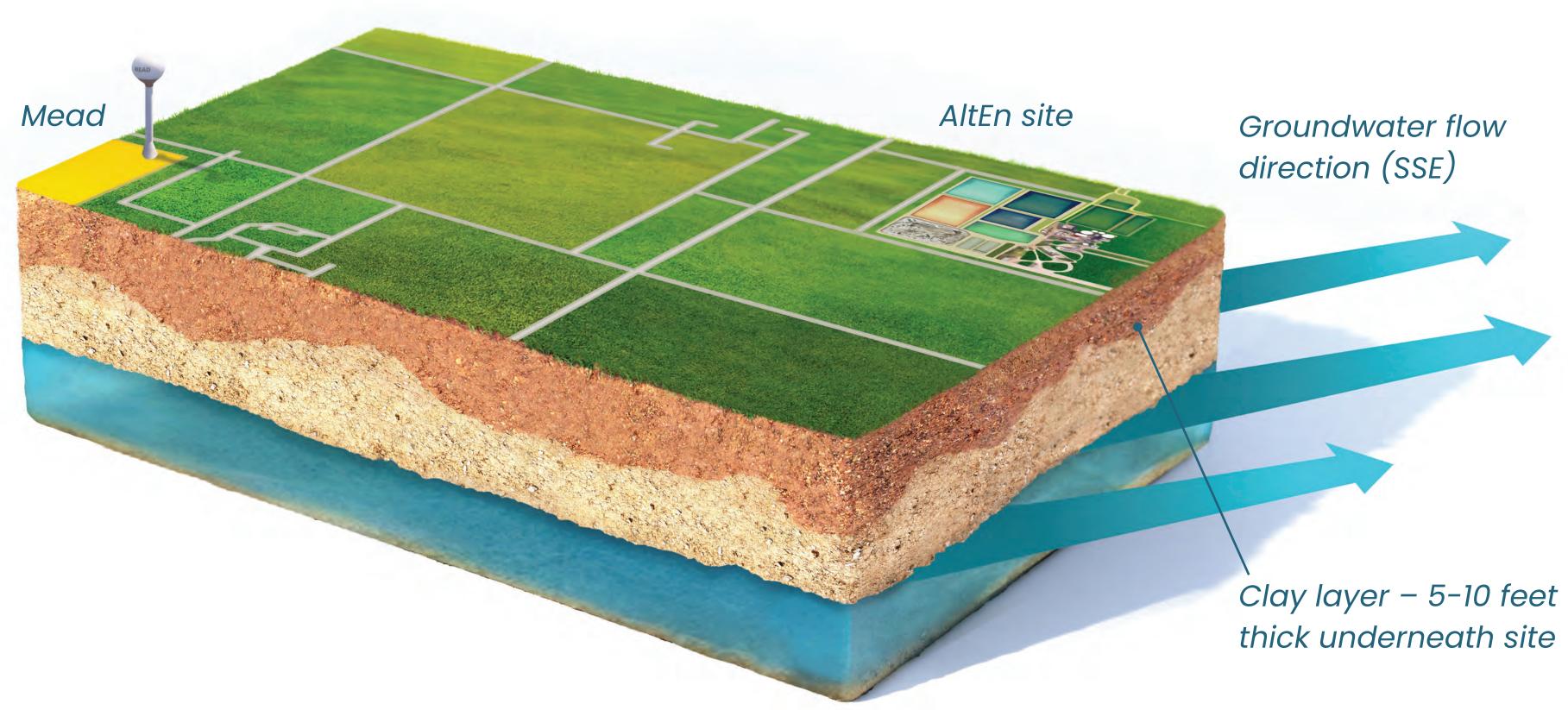
- B Wet cake Consolidated and covered with a Posi-Shell to reduce stormwater contact, infiltration and odors
- Digestor Tanks have been emptied of their 8 million gallons of content (4 million each digestor) and added to Northwest Lagoon
- **Seed** In the process of being removed and transported to a waste-to-energy facility for disposal
- **E Biochar** Removed from site for landfill disposal
- **F Emergency pond** Emptied water into lagoons and moved solids to consolidated wet cake pile, relined, and being used for managing sludge from the water treatment system

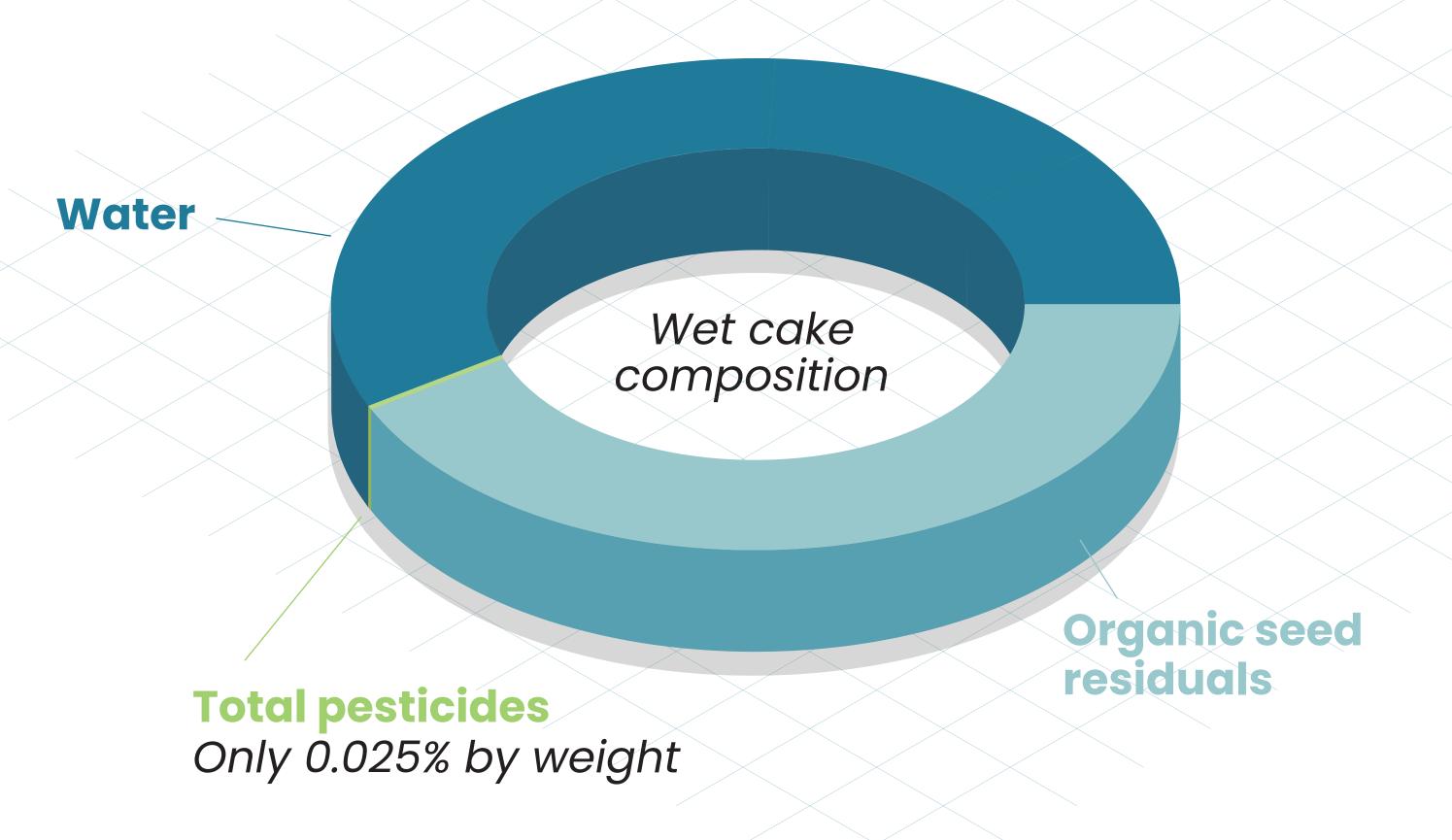


## Is our drinking water safe?

Nebraska Department of Environment and Energy (NDEE) testing has consistently shown no evidence of impact to local drinking water.

- FRG is continuing to conduct groundwater monitoring:
  - Eleven on-site monitoring wells sampled
  - Results have repeatedly confirmed groundwater continues to be safe
- This monitoring in addition to:
  - AltEn quarterly monitoring of four on-site monitoring wells
  - NDEE monitoring of off-site public and private wells, and monitoring wells
- To date, results have demonstrated that groundwater is safe





### Is the wet cake hazardous?

The vast majority of the wet cake is made up of corn seed residuals from manufacturing ethanol and water.

While it contains pesticides, they only make up approximately 0.025% of the wet cake on a weight basis.

The wet cake is a **non-hazardous waste**. It will be solidified to reduce the moisture content and improve its physical properties so that it can be safely transported to and placed at the Pheasant Point Landfill, which is authorized by NDEE to handle it.





#### Water treatment at AltEn site

Includes wastewater from ethanol production as well as stormwater.

- September 2022: FRG submitted Water Remediation Action Plan (RAP) to Nebraska Department of Environment and Energy (NDEE)
- ✓ November 2022: NDEE proposed approving revised Water RAP, solicited public comments
- December 2022: NDEE hosted public hearing
- March 2023: NDEE approved the Water RAP

By the end of 2022, FRG had implemented the Water RAP and treated over 49 million gallons of process water that accumulated in the lagoons and pond, including 31 million gallons that have been applied to local farms as a beneficial nutrient source. Approximately 100 million gallons remained to be treated, not including future stormwater.

A new on-site water treatment facility became operational in

August 2023



















For more information, please visit alteninfo.com

NDEE has two online sites with information about the AltEn site situation:

L MDFT public information portol - http://sies.ne.gov/Press.nnt/pages/AltEn

2. NDES public records - https://sermn.nebraskn.com/publindecases/index.html/htm/Query/D=2/ lose 194050 in the 1950 (coulty Aumbor box to occase alter records